



MONTHLY PROGRESS REPORT

September 5, 2003

Design & Build Status - Work continues at an aggressive pace on the “Design & Build” contract that was awarded to IBM on May 2, 2003.

The FPA Core Team has accepted deliverables for Task 1 - Project Management (Project Management Plan, Project Procedures Description and the FPA Project Schedule), Task 3 – Conceptual Architecture (Conceptual Architecture Document and the LP Model Assessment Paper), Task 5 - Technical Architecture (Technical Architecture Document and the COTS LP Solver Assessment Paper) and Task 15 – Security Planning (Security Plan).

Task 4 – Requirements - Work continues on defining and refining the FPA system requirements. The initial requirements baseline version 1.0 was delivered by the IBM team on August 7. The FPA Core Team met with IBM development team in Boise on August 27th and 28th for inspection of the baseline documents. Specifically, the team worked through “Requirements Review Process Summary (Aug. 2, 03)”, “Use Case 23 - Perform Analysis Optimization”, and Data Model Diagrams. An inspection spreadsheet was prepared noting all defects, questions, and issues.

The FPA Baseline 1.0 includes:

- Conceptual Architecture
- LP Model/Formula Assessment
- Technical Architecture
- COTS LP Solver Assessment Paper
- Security Management Plan
- Use Cases which describe the system components
- Results Interpreter
- Requirements Issues
- Data Dictionary Report
- Data Dictionary Diagrams
- System Context
- Optimization Model Baseline
- Optimization Mapping

The team also performed a walkthrough review of “Use Case 22 - Data Transformation” and “FPA-PM With Focus On Optimal Deployment for Initial Response - The IBM Enhancement”. A final inspection date of Sept. 22 -24 was set for these documents, which will then become part of Baseline 1.1.

Spiral Methodology - The FPA system is being developed using a spiral, iterative methodology. This methodology allows work to progress on those system components that are well defined while requirements for other parts of the system are still being refined. Additionally, the spiral methodology focuses early effort on those components that are most risky. The result is that the

project risk becomes less and less as time goes by. For FPA, the most risky component is the optimization model. That is why the optimization model is being addressed in the first iteration.

Task 6 – Iteration 1: Optimization Model - The IBM team has divided the first design and build iteration into 3 sub-iterations. Significant progress has been made on the first sub-iteration of the FPA design and build. This sub-iteration focuses on the optimization model and the data transformation that will be required to run the model. The IBM team at the IBM Watson Research Center now has a working optimization model. Their current efforts focus on improving the solution times, testing live data within the new model, getting the optimization solver (CPLEX) configured on the AIX server and integrating the CPLEX solver into the overall FPA architecture.

Future sub-iterations within Task 6 will address the “data transformer” which will process raw data into a format the optimization model can use and the “results interpreter” which will convert the results of the optimization into a format from which reports can be generated.

Prototype Areas - The FPA team is partnering with four interagency prototype planning areas (Southern Sierra, Central Oregon, Southern Mississippi and Alaska) to validate requirements, develop design specifications and test the FPA Preparedness Module. These four prototype areas will be the first interagency planning areas to implement FPA.

The FPA Core Team recently went to each prototype area and met with the agency representatives. FPA will be hosting a symposium in October to get the prototype members up to speed on more technical aspects of FPA. The symposium will be held in Seattle October 7-9.

Implementation – Implementation of FPA presents a challenge to the agencies because it involves a level of interagency planning and budgeting coordination that goes far beyond any previous activities. Implementing FPA will require a fundamental cultural change and a significant effort to encourage agencies to implement FPA on an interagency basis, and at a landscape-scale where appropriate. This effort will be led by a separate team that will coordinate implementation of FPA on an interagency basis in collaboration with the FPA Core Team.

The agencies are creating a formal interagency FPA Implementation Coordination Group (ICG). This group will consist of the fire planner from each agency charged with leading implementation of FPA. Adequate representation of fire planning and budgeting is essential to ensure seamless implementation. A Memorandum of Understanding is being developed to identify the membership of the FPA-ICG and define the group’s responsibilities.

General duties of the ICG includes:

- Developing an implementation plan and schedule for FPA.
- Communicating and interfacing with the FPA Core Team and other relevant activities.
- Assisting the national fire budget and planning leads (FPA Steering Committee) in coordinating the interagency transition to FPA based fire planning and budgeting.
- Assisting with the development and implementation of a fire planning and budgeting training curriculum.
- Coordinating and providing guidance for the development of interagency FPU’s.



GIS in FPA – The initial release of FPA will include basic GIS capability to define the spatial extent of the Fire Planning Units (FPU), Fire Management Units (FMU) and the workload points within each FMU. The FPA team is working to develop the GIS use case which will describe how GIS will be utilized in FPA.

Joe Frost (FS- NIFC) has been detailed to FPA and is working with IBM to develop a spatial data flow and requirements for the prototype areas. A prototype of the spatial use case will be developed for presentation to the prototype members at the October symposium in Seattle.

Fire Sciences Lab in Missoula – The FPA project is working closely with the Fire Sciences Lab in Missoula to develop new approaches for describing fire occurrence and fire behavior. This effort will bring the best available fire science to bear within the FPA model. The FPA team is meeting with the Fire Lab September 9-10 to finalize methods for getting fire occurrence and fire behavior data and models into FPA.

For further information, visit the FPA web site at <http://fpa.nifc.gov/>